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229077



***The Trusted Integrator for Sustainable Solutions***

REMOVAL SUPPORT TEAM 2  
EPA CONTRACT EP-W-06-072

January 7, 2009

Nick Magriples, On Scene Coordinator  
U.S. Environmental Protection Agency, Region II  
Removal Action Branch  
2890 Woodbridge Avenue  
Edison, NJ 08837

**EPA CONTRACT NO.: EP-W-06-072**

**TDD NO: TO-0009-0126**

**DOCUMENT CONTROL NO: RST 2-02-F-0797**

**SUBJECT: EXPLORATORY TEST PIT REPORT – Jewett White Lead Company,  
Staten Island, Richmond County, New York**

Dear Mr. Magriples:

Enclosed please find five copies of the Exploratory Test Pit Report for the Jewett White Lead Company site located in Staten Island, Richmond County, New York, conducted on December 17 and 18, 2008 per your January 6 e-mail. If you have any questions, please do not hesitate to call me at 732-585-4437.

Sincerely,

Weston Solutions, Inc.

Gary Boyer, P.E.  
Site Project Manager

Enclosure:

cc: TDD File No.: TO-0009-0126



## EXPLORATORY TEST PIT REPORT

**SITE NAME:** Jewett White Lead Company  
DCN #: RST2-02-F-0797  
TDD#: TO-0009-0126

**ACTIVITY DATES:** December 17 -18, 2008

1. **Site Location:** 2000 Richmond Terrace  
Staten Island, Richmond County, New York  
Refer to Figure 1, Attachment A for the Test Pit Location Map and Attachment B, Table 2, for the Site Locational Data
2. **Test Pit Installation:** RST 2 provided a backhoe to install sixteen (16) test pits to a depth of approximately four feet below grade at locations as shown in Figure 1, Attachment A. The subcontractor, Marcor Remediation, set up a decontamination area consisting of a framework of 2 X 4 lumber lined with polyethylene plastic, as shown in Picture 1, Attachment D. A typical test pit operation is shown in Picture 2, Attachment D. The backhoe was decontaminated after every test pit and wash water was collected in drums. The backhoe was also decontaminated before leaving the site. In total, two 55-gallon drums of wash water were collected.

The drums were sampled for cyanide, sulfide, SVOCs, PCBs, pesticides, VOCs, metals, and TPH on December 18. The drums were secured and are in temporary storage on the Perfetto property.

3. **Air Monitoring:** RST 2 conducted air monitoring for organic vapors, radiation, LEL, hydrogen sulfide, carbon monoxide and oxygen to document conditions in the test pits. Results are shown in Attachment B, Table 1. Attachment B also includes the dimensions of each test pit. The results in Attachment B show that the conditions in the test pits did not exceed action levels established in the health and safety plan or background levels.

RST 2 also monitored for particulates using a DataRAM4 at the edge of each test pit. Results are shown in Attachment C. The results for December 17, when the weather was rain and freezing rain, show how the water in the atmosphere increased the total particulate matter readings. This is likely due to the mechanism by which the total particulate matter is measured (light scattering). The results for December 18, when there was no rain, show two spikes of elevated particulate matter readings. The first of these occurred when the backhoe broke a concrete slab, creating dust, at 07:30. The second spike occurred when the backhoe hit refusal and was scraping concrete, creating dust, at 08:33. However, for both days, it should be noted that a sustained reading above  $300 \mu\text{g}/\text{m}^3$  did not occur. The sustained action level established in the health and safety plan was never exceeded.

4. **Air Samples:** Air samples were collected for total lead. Per OSC direction, due to rain on December 17, perimeter air samples were not collected. On December 18, perimeter air samples were collected at locations shown in Figure 1, Attachment A. Wind direction was from the northeast so locations AM-4, AM-5 and AM-6 (a duplicate) were collected upwind and AM-3 and AM-7 were collected downwind. Personal air samples were collected from the backhoe operator and from RST 2 personnel on both December 17 and December 18. Attachment E contains air sample collection information and the chain of custody record.

5. **Laboratory Receiving Samples:**

<u>Sample Type/Analysis</u>	<u>Name and Address of Laboratory</u>
Air Samples/ Lead	Chemtech 284 Sheffield Street Mountainside, NJ 07092
Wash Water Samples/ Cyanide, Sulfide, SVOC, PCBs, Pesticides, VOCs, Metals, TPH	US EPA DESA 2890 Woodbridge Avenue Edison, NJ 08837

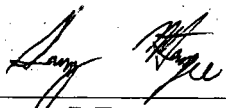
6. **On-Site Personnel:**

<u>Name</u>	<u>Representing</u>	<u>Duties on Site</u>
Gary Boyer	Region II RST 2	Site Project Manager, Site Health and Safety, Site QA/QC, Sample Collection and Management
Gezahegne Bushra	Region II RST 2	Sample Collection and Sample Management, Locational Data Collection

7. **Test Pit Documentation:**

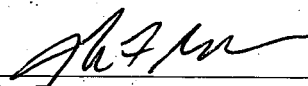
Test pits were photographed and logged as each stratum was identified. Attachment D shows photographs and logs for each test pit.

8. **Report prepared by:**

  
Gary Boyer, P.E.  
RST 2 Site Project Manager

Date: 1/6/09

**Report reviewed by:**

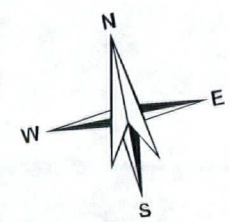
  
John Brennan  
Group Leader

Date: 1/6/09

**ATTACHMENT A**

**Site Figure**





SCALE

1:550

map

LEGEND

- Air Monitoring Stations
- Property Corners
- Test Pit Locations

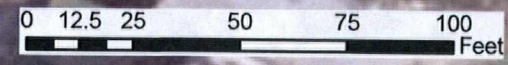
**Figure 1:**  
**Test Pit Location Map**

JEWETT WHITE LEAD COMPANY SITE  
STATEN ISLAND, NEW YORK

UNITED STATES ENVIRONMENTAL  
PROTECTION AGENCY  
REMOVAL SUPPORT TEAM 2  
CONTRACT # EP-W-06-072

Weston Solutions, Inc.  
Northeast Division  
In Association With  
Scientific and Environmental Associates, Inc.,  
Innovative Technical Solutions, Inc. &  
Avatar Environmental, LLC

GIS ANALYST:	J. JAGER
EPA OSC:	N. MAGRIPILES
RST 2 SPM:	G. BOYER
FILENAME:	JEWETT SAMPLE MAP.MXD
FIGURE:	2
REVISION:	1
DATE MODIFIED:	12/22/08





**ATTACHMENT B**

**Tables**

**Table 1 - Air Monitoring Information and Test Pit Dimensions**

**Table 2 - Site Locational Data**



**TABLE 1**  
**JEWETT WHITE LEAD COMPANY SITE**  
**DECEMBER 17 - 18, 2008**

Date	Time	Test Pit ID	Test Pit Dimensions (W x L x H, ft)	O <sub>2</sub> (%)	LEL (%)	H <sub>2</sub> S (ppm)	Organic Vapors (units)	CO (ppm)	Radiation* (μR/hr)
12/18/2008	12:15	A-1	4 x 6 x 4	20.9	0	0	0	0	6
12/18/2008	12:57	A-2	3.5 x 7 x 4	20.9	0	0	0	0	6
12/18/2008	11:46	A-3	4 x 7 x 4	20.9	0	0	0	0	6
12/18/2008	11:08	A-4	4 x 8 x 4	20.9	0	0	0	0	8
12/18/2008	10:34	A-5	6 x 9 x 3.5	20.9	0	0	0	0	7
12/18/2008	9:54	B-1	5 x 9 x 4	20.9	0	0	0	0	8
12/18/2008	9:25	B-2	5 x 9 x 4	20.9	0	0	0	0	6
12/18/2008	8:40	B-3	5 x 7 x 4	20.9	0	0	0	0	7
12/18/2008	8:15	B-4	5 x 9 x 4	20.9	0	0	0	0	8
12/17/2008	15:23	C-1	5 x 8 x 4	20.9	0	0	0	0	5
12/17/2008	15:50	C-2	5 x 7.5 x 4	20.9	0	0	0	0	8
12/18/2008	7:35	C-3	4 x 7 x 4	20.5	0	0	0	0	7
12/17/2008	14:08	D-1	5 x 8 x 4	20.9	0	0	0	0	5
12/17/2008	14:42	D-2	4.5 x 9 x 4	20.9	0	0	0	0	5
12/17/2008	12:15	E-1	7 x 11 x 4.8	20.9	0	0	0	0	5
12/17/2008	13:10	E-2	4.5 x 8 x 4	20.9	0	0	0	0	7

LEL - Lower Explosive Limit

H<sub>2</sub>S - Hydrogen Sulfide

CO - Carbon Monoxide

\* - Background Levels of gamma radiation were established at 5 μR/hr at the property perimeter.



**TABLE 2**  
**JEWETT WHITE LEAD COMPANY SITE**  
**DECEMBER 17 – 18, 2008**  
**SITE LOCATIONAL DATA**

Longitude	Latitude	Location
-74.1309	40.63919	West Property Corner
-74.1304	40.63988	North Property Corner
-74.1297	40.63922	East Property Corner
-74.1303	40.63977	Test Pit A-1
-74.1304	40.63965	Test Pit A-2
-74.1305	40.63954	Test Pit A-3
-74.1306	40.63938	Test Pit A-4
-74.1307	40.6393	Test Pit A-5
-74.1305	40.63928	Test Pit B-4
-74.1304	40.63938	Test Pit B-3
-74.1303	40.63955	Test Pit B-2
-74.1302	40.63969	Test Pit B-1
-74.1301	40.63958	Test Pit C-1
-74.1302	40.63945	Test Pit C-2
-74.1303	40.63928	Test Pit C-3
-74.1301	40.63933	Test Pit D-2
-74.13	40.63944	Test Pit D-1
-74.13	40.63928	Test Pit E-2
-74.1299	40.63932	Test Pit E-1

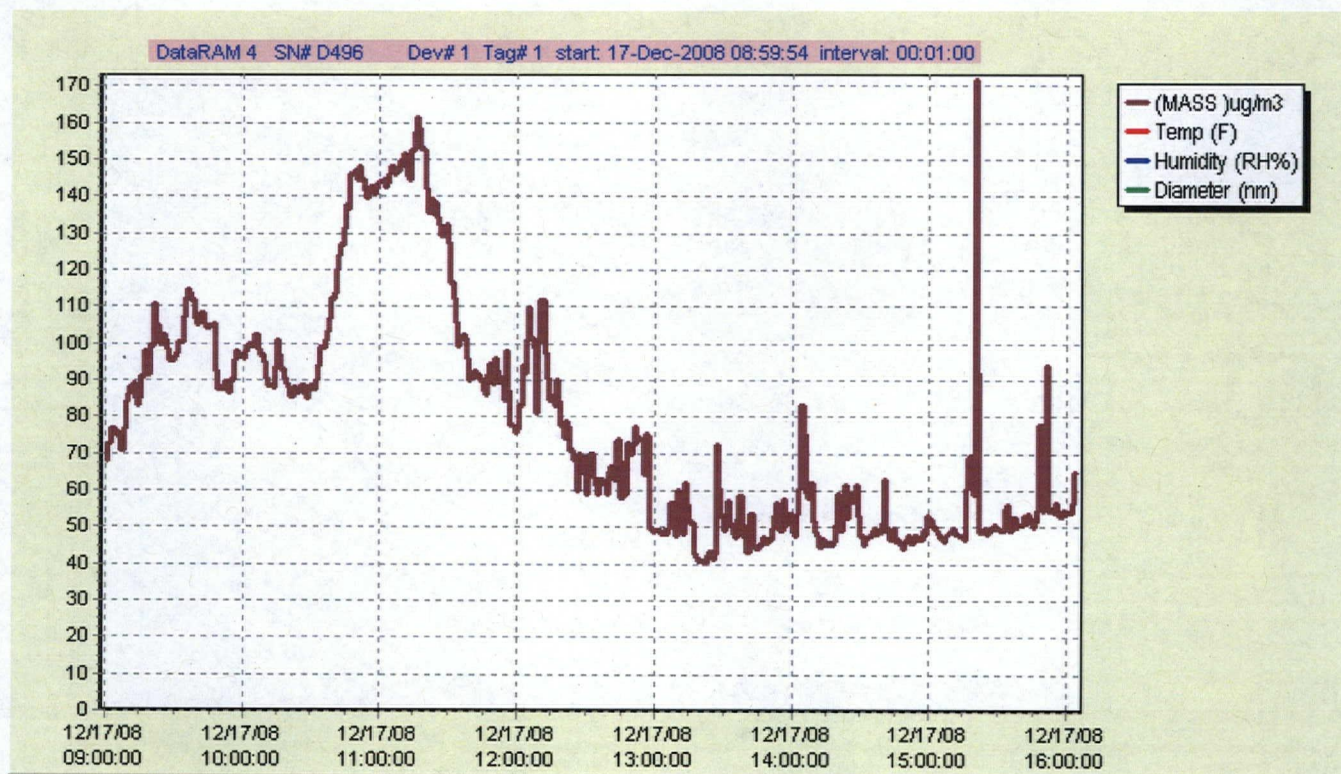
Data presented in Latitude/Longitude, WGS 1984, Decimal Degrees.

**ATTACHMENT C**

**Total Particulate Matter Data**

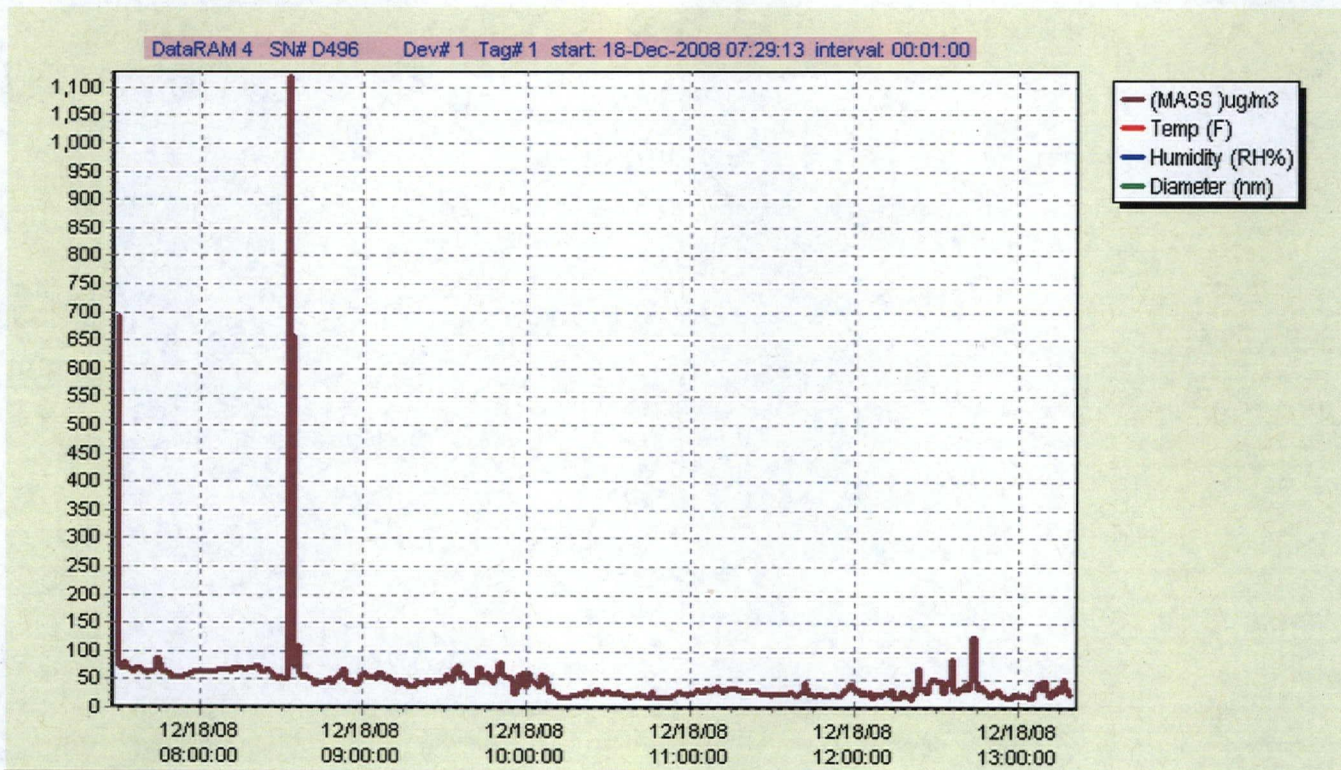


**TOTAL PARTICULATE MATTER DATA  
JEWETT WHITE LEAD COMPANY SITE  
DECEMBER 17, 2008**





**TOTAL PATICULATE MATTER DATA  
JEWETT WHITE LEAD COMPANY SITE  
DECEMBER 18, 2008**





**ATTACHMENT D**  
**Photographic Documentation**



**TEST PIT INSTALLATIONS  
JEWETT WHITE LEAD COMPANY SITE  
STATEN ISLAND, NEW YORK  
DECEMBER 17 – 18, 2008**



**Picture 1. Decontamination Area.**



**Picture 2. Typical Test Pit.**



**TEST PIT LOCATIONS SOIL PROFILE  
JEWETT WHITE LEAD COMPANY SITE  
STATEN ISLAND, NEW YORK  
DECEMBER 17 – 18, 2008**



0-7"	Black-Brown Sand with gravel and broken brick and concrete
7"-35"	Black sandy fill with brick and debris
35"-58"	Tan, sandy clay

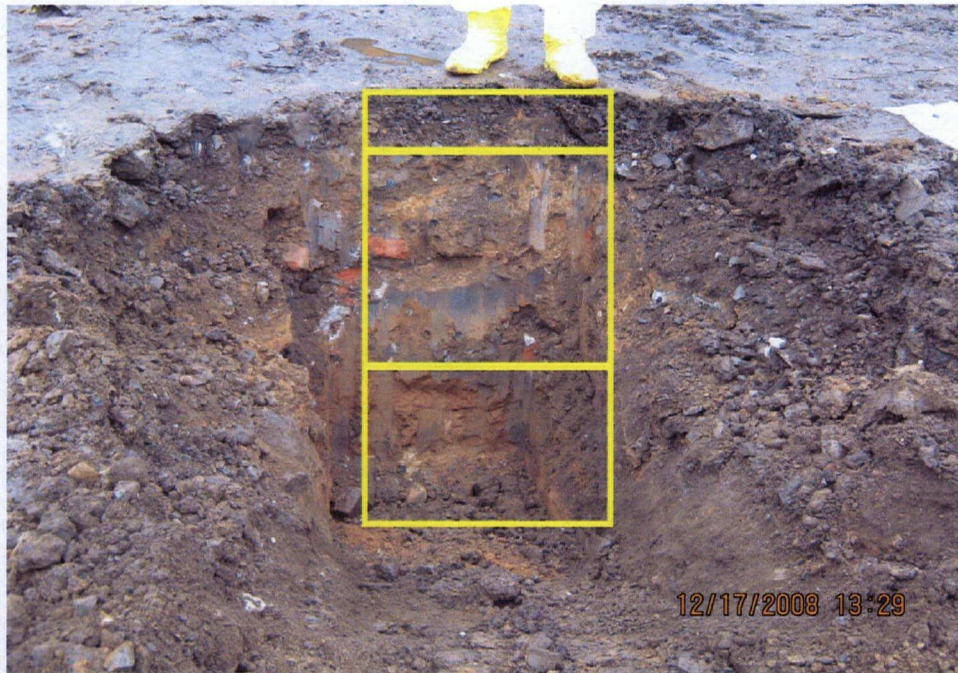
**Picture 3. Test Pit E-1**



**Picture 4. Closer view of Test Pit E-1**



**TEST PIT LOCATIONS SOIL PROFILE  
JEWETT WHITE LEAD COMPANY SITE  
STATEN ISLAND, NEW YORK  
DECEMBER 17 – 18, 2008**



0-7"	Charcoal; black/brown sandy clay; concrete chunks
7"-28"	Tan, sandy clay; brick concrete chunks, black gravel
28"-58"	Tan sandy clay, some black mottles

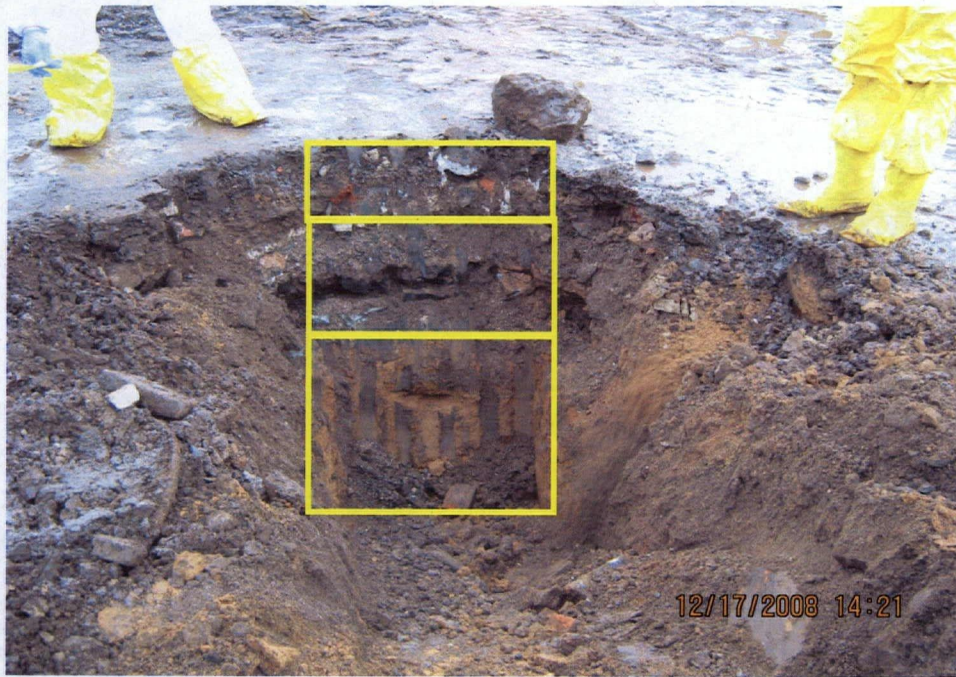
**Picture 5. Test Pit E-2**



**Picture 6. Closer view of Test Pit E-2**



**TEST PIT LOCATIONS SOIL PROFILE  
JEWETT WHITE LEAD COMPANY SITE  
STATEN ISLAND, NEW YORK  
DECEMBER 17 – 18, 2008**



0-10"	Black/gray clay fill with asphalt, gravel, concrete, stones and brick
10"-31"	Black asphalt, broken chunks concrete mixed with black sand, brick
31"-48"	Tan, sandy clay, some black mottles

**Picture 7. Test Pit D-1**



**Picture 8. Closer view of Test Pit D-1**



**TEST PIT LOCATIONS SOIL PROFILE  
JEWETT WHITE LEAD COMPANY SITE  
STATEN ISLAND, NEW YORK  
DECEMBER 17 – 18, 2008**



0-20"	Dark brown clay, some debris, clay pipe, plastic pipe, brick, chunks of stone, concrete
20"-48"	Tan, sandy clay, some black streaks

**Picture 9. Test Pit D-2**



**Picture 10. Closer view of Test Pit D-2**



**TEST PIT LOCATIONS SOIL PROFILE  
JEWETT WHITE LEAD COMPANY SITE  
STATEN ISLAND, NEW YORK  
DECEMBER 17 – 18, 2008**



0-15"	Sandy black clay with gravel, debris, concrete chunks, brick
15"-33"	Brick wall and tan sand/clay
33"-48"	Tan sandy clay, some black spotting and streaking

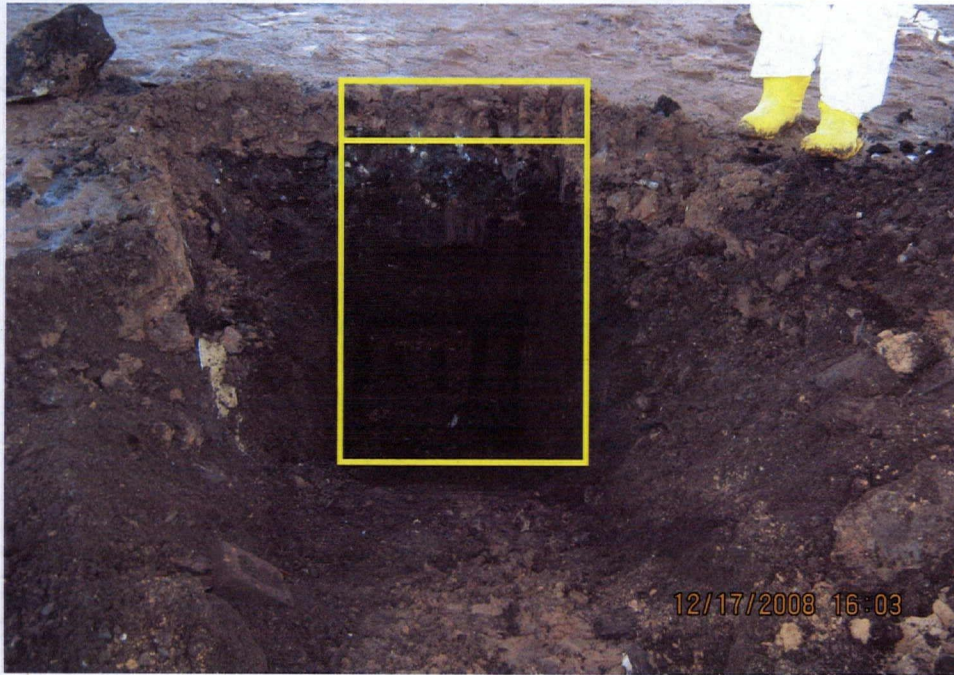
**Picture 11. Test Pit C-1**



**Picture 12, Closer view of C-1**



**TEST PIT LOCATIONS SOIL PROFILE  
JEWETT WHITE LEAD COMPANY SITE  
STATEN ISLAND, NEW YORK  
DECEMBER 17 – 18, 2008**



0-7"	Brown, sandy clay with gravel, broken concrete
7"-48"	Black burnt wood with roots, wood chunks, brick, metal, broken glass

**Picture 13. Test Pit C-2**



**Picture 14. Closer view of Test Pit C-2**



**TEST PIT LOCATIONS SOIL PROFILE  
JEWETT WHITE LEAD COMPANY SITE  
STATEN ISLAND, NEW YORK  
DECEMBER 17 – 18, 2008**



0-6"	Cement slab, several broken pieces
6"-48"	Gray/black sandy clay with broken concrete, some gravel, black charred wood and asphalt

**Picture 15. Test Pit C-3**



**Picture 16. Closer view of Test Pit C-3**



**TEST PIT LOCATIONS SOIL PROFILE  
JEWETT WHITE LEAD COMPANY SITE  
STATEN ISLAND, NEW YORK  
DECEMBER 17 – 18, 2008**



0-12"	Brown, sandy clay with wood chips, cobble and stones
12"-48"	Black loamy soil, decomposed wood, broken concrete, styrofoam, broken brick, roots at 15" bgs, broken wood

**Picture 17. Test Pit B-4**



**Picture 18. Closer view of Test Pit B-4**



**TEST PIT LOCATIONS SOIL PROFILE  
JEWETT WHITE LEAD COMPANY SITE  
STATEN ISLAND, NEW YORK  
DECEMBER 17 – 18, 2008**



0-9"	Brown, sandy clay with gray gravel, large concrete chunk located in one spot in middle
9"-18"	Gray to dark gray gravel and broken concrete
18"-48"	Black loamy soil, decomposed wood and wood pieces, tan brick, concrete and some metal

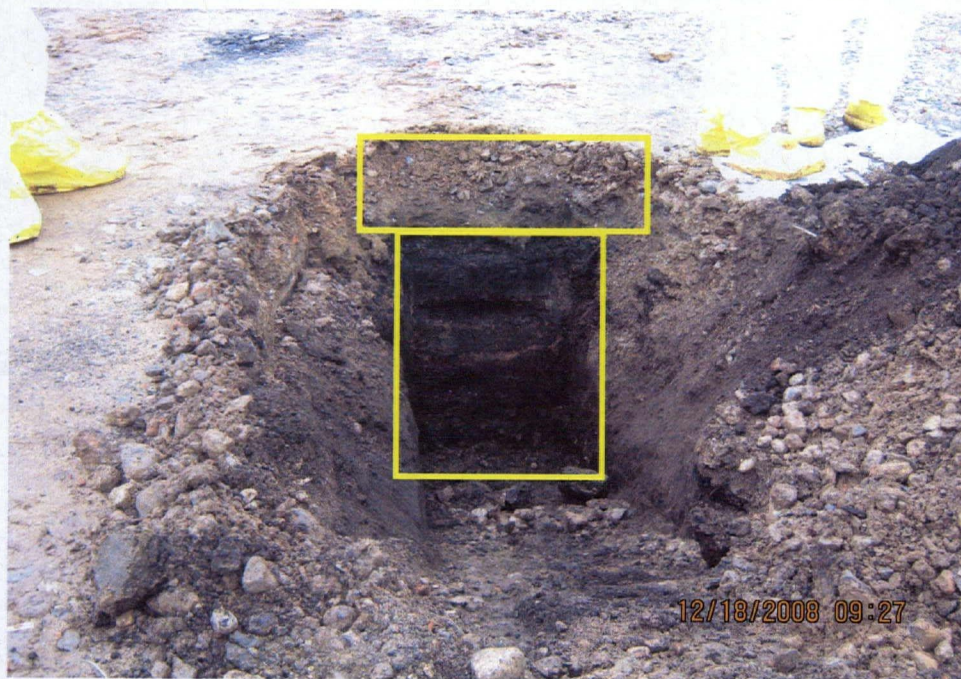
**Picture 19. Test Pit B-3**



**Picture 20. Closer view of Test Pit B-3**



**TEST PIT LOCATIONS SOIL PROFILE  
JEWETT WHITE LEAD COMPANY SITE  
STATEN ISLAND, NEW YORK  
DECEMBER 17 – 18, 2008**



0-13"	Brown clayey sand aggregate gravel base, very firm loamy soil
13"-48"	Black loamy soil, decomposed wood and tan clay

**Picture 21. Test Pit B-2**



**Picture 22. Closer view of Test Pit B-2**



**TEST PIT LOCATIONS SOIL PROFILE  
JEWETT WHITE LEAD COMPANY SITE  
STATEN ISLAND, NEW YORK  
DECEMBER 17 – 18, 2008**



0-5"	Black clay loam with gravel
5"-19"	Light tan clay with bricks
19"-35"	Brown-black clay with bricks and broken stones
35"-48"	Light tan clay with some red and yellow brick

**Picture 23. Test Pit B-1**



**Picture 24. Closer view of Test Pit B-1**



**TEST PIT LOCATIONS SOIL PROFILE  
JEWETT WHITE LEAD COMPANY SITE  
STATEN ISLAND, NEW YORK  
DECEMBER 17 – 18, 2008**



0-18"	Black clay and sand, concrete and brick, some metal rebar and wire
18"-42"	Broken concrete and brick and broken pottery mixed with black loamy soil
42"	Refusal, buried concrete slab

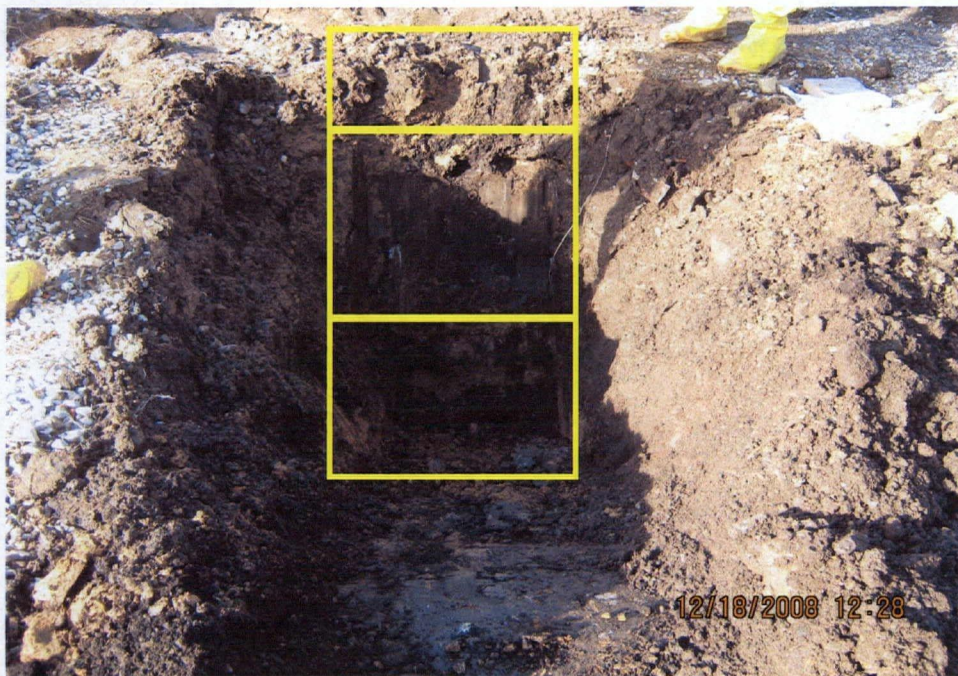
**Picture 25. Test Pit A-5**



**Picture 26. Closer view of Test Pit A-5**



**TEST PIT LOCATIONS SOIL PROFILE  
JEWETT WHITE LEAD COMPANY SITE  
STATEN ISLAND, NEW YORK  
DECEMBER 17 – 18, 2008**



0-6"	Brown clay with gravel
6"-32"	Black silty clay with brick and broken concrete
32"-48"	Light tan silty sandy clay with gray mottles

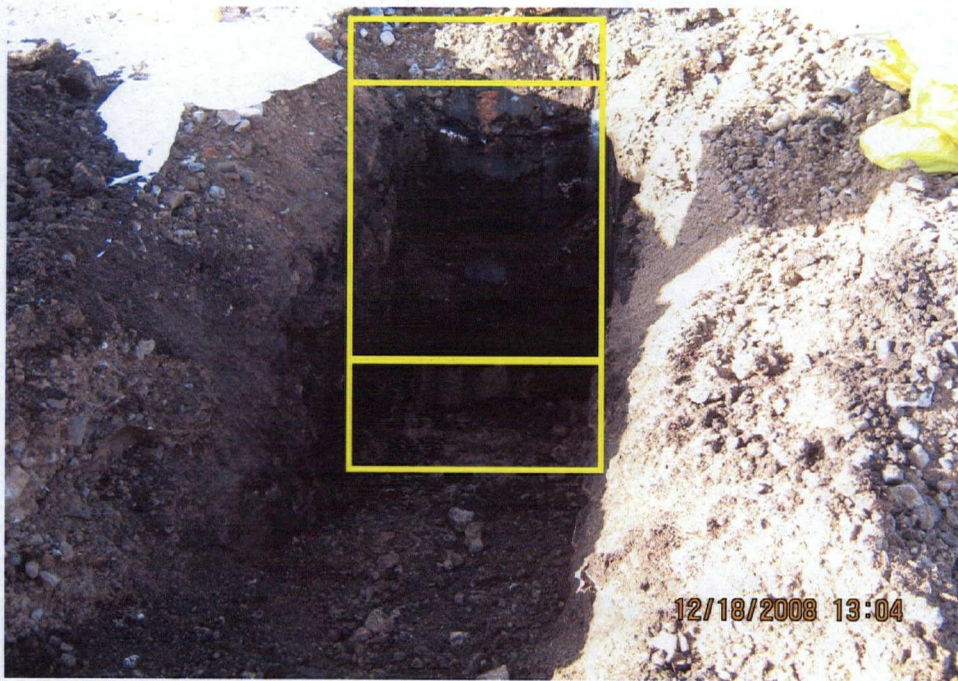
**Picture 31. Test Pit A-1**



**Picture 32. Closer view of Test Pit A-1**



**TEST PIT LOCATIONS SOIL PROFILE  
JEWETT WHITE LEAD COMPANY SITE  
STATEN ISLAND, NEW YORK  
DECEMBER 17 – 18, 2008**



0-4"	Gravel
4"-40"	Black clay, some brick
40"-48"	Light tan, sandy clay

**Picture 33. Test Pit A-2**



**Picture 34. Closer view of Test Pit A-2**



**ATTACHMENT E**  
**Air Sample Collection Information and Chain of Custody Record**



**TABLE 3**  
**JEWETT WHITE LEAD COMPANY**  
**AIR SAMPLE COLLECTION INFORMATION**

RST 2 Sample ID	Location	Pump ID	Sample Date	Total Elapsed Time	Sample Volume	Notes
JW-LD-3	Northwest fence perimeter, along Park Avenue, downwind	827652	12/18/08	364 Minutes	728 L	None
JW-LD-4	Northeast fence perimeter, along Richmond Terrace north, upwind	644956	12/18/08	364 Minutes	709.8 L	None
JW-LD-5	Northeast fence perimeter, along Richmond Terrace south, upwind	917496	12/18/08	365 Minutes	704.45 L	None
JW-LD-6	Northeast fence perimeter, along Richmond Terrace south, upwind	761805	12/18/08	365 Minutes	731.83 L	Duplicate of JW-LD-5
JW-LD-7	South fence perimeter, along railroad tracks, downwind	827735	12/18/08	367 Minutes	743.18 L	None
JW-LD-FB 12 18	Field Blank	N/A	12/18/08	N/A	N/A	Field Blank for December 18, 2008
JW-LD-LB	Lot Blank	N/A	12/18/08	N/A	N/A	Lot Blank for Lot No. 4276-7D7PASK-086



**TABLE 3**  
**AIR SAMPLE COLLECTION INFORMATION (CONTINUED)**

Sample ID	Location	Pump ID	Sample Date	Total Elapsed Time	Sample Volume	Notes
JW-LD-BK01	Personal sample, backhoe operator	799114	12/18/08	17 Minutes	32.9 L	Pump Fault
JW-LD-RST-1218	Personal sample, RST 2, Boyer	644851	12/18/08	82 Minutes	161.54 L	Pump Fault
JW-LD-BK-1	Personal sample, backhoe operator	799114	12/17/08	293 Minutes	556.7 L	None
JW-LD-RST2	Personal sample, RST 2, Boyer	644851	12/17/08	292 Minutes	556.48 L	None
JW-LD-FB	Field Blank	N/A	12/17/08	N/A	N/A	Field Blank for December 17, 2008



[illegible]



**TEST PIT LOCATIONS SOIL PROFILE  
JEWETT WHITE LEAD COMPANY SITE  
STATEN ISLAND, NEW YORK  
DECEMBER 17 – 18, 2008**



0-10"	Brown muddy clay with gray gravel aggregate
10"-48"	Black loamy soil, roots and pieces of broken concrete

**Picture 27. Test Pit A-4**



**Picture 28. Closer view of Test Pit A-4**



**TEST PIT LOCATIONS SOIL PROFILE  
JEWETT WHITE LEAD COMPANY SITE  
STATEN ISLAND, NEW YORK  
DECEMBER 17 – 18, 2008**



0'-6"	Brown sandy clay with dark gray gravel and some brick
6"-16"	Reddish brown/tan sandy clay with some broken concrete
16"-27"	Dark brown/black sandy clay with much gravel (gray gravel)
27"-48"	Light tan sandy silty clay with some gray areas

**Picture 29. Test Pit A-3**



**Picture 30. Closer view of Test Pit A-3**